

# BMHA Newsletter

BICYCLE MOBILE HAMS OF AMERICA



Volume 7, Number 4

Oct/Nov/Dec 1996

## NOTEPAD

If you tell us your bike tour plans we'll publish them in the NewsLetter and help make it possible for you to meet BMHAers in person or on radio as you pedal along. Just send in your route and the dates. In the April issue we ran the Trans-Am tour plans of Carol and Dave DeVoe. On page two you'll see the story of their tour and how they made contact with other BMHA members, and how this helped make their trip a big success.

Recently you received the annual mailing of the three BMHA directories: Membership, E-mail Addresses, and Packet Addresses. Please promptly report any errors or oversights so that we can publish corrections in the next BMHA NewsLetter.

### Corrections on the new '96-97 Directories:

The correct call of Ned Mountain of Roswell GA is WC4X. Sorry, Ned.

### Good things sometimes move slowly...but surely.

Two projects mentioned in the last issue, The BMHA Home Page on the Internet, and the Handbooks that tell hams and tour leaders how to use radio on big tour events, are still very much alive, well underway, and soon to be finished. Mainly it's a case of doing some final editing. More later.

### Treasury Report

Fiscal year, July 1, 1995 to June 30, 1996.

Beginning bank balance:	4,006.07
Monies received:	<u>3,563.00</u>
Total:	7,569.07
<b>Expenses:</b>	
Printing and Xerox:	1,073.59
Postage:	1,097.83
Office supplies & expenses:	503.40
Miscellaneous:	<u>511.33</u>
Total Expenses:	<u>3,186.15</u>
Bank balance on hand, June 30, 1996:	\$4,382.92

Russell Dwarshuis, KB8U, writes:

I know that BMHA keeps a record of the most miles traveled in 24 hours by our members. Please chalk me up for 301 miles! I rode a super-fast recumbent in the National 24 Hour Challenge last June for my personal best. I wrote up my experiences of doing that ride and stuck them on my home page. If you'd like to read it, the address is: <http://home.merit.edu/~rjd/nat24hrCHALLENGE.html>.

Thanks, Russ. I brought up your 301-mile story, loved it. Especially the parts titled: "Eat or Bonk", "Home Stretch", and "Aches and Pains".

—Hartley Alley, N4OA, Editor



*Heading West on the endless prairies of Montana's Big Sky country, Carol, WL7CRE, and Gina crank out the miles. (See Trio Tours US on page 2)*

# TRAVEL & ADVENTURE

## Trio Tours US---with Help from BMHA'ers

The idea of a cross-continent bicycle trip was conceived a couple of years ago when my wife Carol, WL7CRE, and I realized that 1996 would be the twentieth anniversary of our first long tour, when in 1976 our family of five cycled in a Bicentennial group from Colorado to Oregon.

When we told our three now-married daughters about it, they all wanted to go. But alas, husbands, jobs, and kids called more strongly. The grandkids, however, did not feel so encumbered. They wanted to GO! Gina, the 13 year old, qualified on the basis of age.

We had done other relatively long bike tours—6 weeks in Europe; 6 weeks in western Canada, and northeastern US; and 8 weeks on the US west coast. But this one would be different—it would be the longest: 3 months, 4,400 miles, and we would have our granddaughter and a ham radio with us.

We chose to follow the Adventure Cycling Association "Northern Tier" route between Bar Harbor, Maine and Anacortes, Washington. It would save us a lot of research time, and give us an achievable goal of 90 days to complete the tour. Having a designated route also allowed us to schedule General Delivery mail pickup points. We shipped our bikes to Maine from Alaska when the roads at home were barely clear of snow, so we had not had a lot of time to train.

Knowing that we would soon "pedal our way into shape", we left Bar Harbor and headed west. We walked some of the hundreds of short but steep hills in the eastern US. By the time we reached the so-called 'flat' terrain of Ohio, we had done the 'Hilly Thousand' miles, walking was rare, and our average daily mileages increased from 45 to over 50. The Great Plains were windy, but the westerlies did not 'prevail' enough to make us regret our decision to travel east to west. It was nice to have the morning sun warming our backs and not blinding us.

### Hamming is sometimes good, sometimes bad.

Since this is an article in the BMHA Newsletter, it should be full of bicycle mobile hamming adventure — right? Well, an adventure it was, and the good news is that we completed the trip in good shape and met a lot of great people along the way. The bad news is that we didn't do much hamming for lack of a satisfactory bicycle-mobile setup, and a good antenna.

In addition to relatives and friends, we had before the trip contacted League of American Bicyclists Hospitality Homes, and BMHA members who live along the route. (See the *Comment* by Bill Vodall, WA7NWP, on page 8 of the July '96 issue. —Ed.) Of the 15 hams we wrote to we were only able to contact 5, either in person, by phone, or on 2M.

From the start, at irregular intervals, I tried to monitor repeater frequencies along the route from our camp site, or sometimes from a hill top. I heard some traffic, but made no contacts for the first thousand miles. A "J" antenna I had made from a length of 50-ohm coaxial cable did not work for reasons I have yet to ascertain. I mailed it home, using a 12-inch rubber duckie for the rest of the trip. However, we regularly listened to weather forecasts on the HT, and had some entertaining evenings

listening to 2M conversations even though we were unable to reach them.



Gina, Carol, and Dave in their dress-up clothes, after a long day of Vermont's hills.

Finally, one evening as the three of us were walking to a restaurant several blocks from our campground in Corry, PA, I turned on the HT and started clicking through the repeater frequencies I had programmed. Bingo---there was a strong signal on 147.09. It was a net, and the controller was inviting calls from "any portables" out there. I logged in, telling them about our trip, and asking about a BMHA'er we had written to, Bernie Fuller, N3EFN. One of the regulars on the net contacted Bernie. Then, as we were walking back to camp, a ham we had been talking to on the net drove up and gave us a ride. It was Bob, WA3HDK. He got Bernie on the 2M rig in his pickup, and we arranged to meet the next day.

Bob came to our camp the next morning to take our picture—he had already interviewed us for a piece in the Corry radio club newsletter. He then led us through town to the Post Office, where he coaxed a supervisor out of his office before opening time. The man graciously accepted the package we needed to mail, hefted it, and said, "three dollars should do it". On the way out of town, I followed Bob's radioed directions using my HT. My bike hit a bump that tossed the unsecured radio out of the handlebar bag onto the asphalt. Those things must be tough—it had only a scratch, and it still worked. (As I write this just before deadline, the transmitter does not get a squelch out of the local repeater, although the receiver is normal. Haven't had time to check it out, but it may be related to that bump.)

About an hour later, Bernie showed up in a shiny blue car, looking for us. He had taken time from a busy schedule to drive 25 miles from his home in Saegertown, PA, to meet us on our route. We talked in the sunshine beside the road. It was interesting for us to learn something of his hamming experience, his military career, and his duties as ARRL Section Manager for western PA.

Thirty-three days later, from the roadside northeast of Fargo, ND I tried to reach BMHA'er Ken Covey, W0ZQJ, through a couple of local repeaters with no luck. Then, late that afternoon, while we were in a Fargo bike shop having some tuning up done on our bikes, this guy walked in and bought a

bike flag. It was Ken Covey himself! He was buying the flag mast to support a "J" antenna he had made.

Later that evening, with Ken's help, I was able to confirm that our HT (a Kenwood 22AT) was functioning normally, but that it would need more than the 12" rubber duckie to be very useful on a cross-country tour. Ken also told us about the SuperLink — a system of potent repeater link-ups in North Dakota and Minnesota, sponsored by the Red River Amateurs, Inc. I later tried more than once to use the SuperLink and have decided that lack of a good antenna and a bit more power were the cause of our failure to make a contact.

On August 1, another BMHA'er, Bill Vodall, WA7NWP, assisted us in finding the right campground in Cut Bank, MT. The next day, he and his dad, George, took all three of us and our bikes in George's old pickup, across the last of the prairie to Glacier National Park. "It's no trouble", they insisted. The lift saved us the time it would have taken to pedal about 70 miles...into the wind. We also missed narrow, heavily traveled roads and possible harassment by inebriated citizens (which other cyclists had experienced). But most importantly, the time-saving enabled us to match schedules with old friends who would not have been able to meet with us at any other time.

Enroute in the pickup, Bill and George entertained us with tales of local history and Indian culture. We also learned about the remote sensors on the railroad that transmit by radio a computer-voice message each time a train passes a station, relating the condition of the train's wheel bearings, and the weather at that station at that time. We listened to it on Bill's mobile 2M rig.

We had a brief, but frustrating 2M contact with Bill from our campsite in Cut Bank, when I couldn't maintain a consistent signal through the repeater. Probably the old inadequate antenna/power syndrome.

Of all the people we met during the three months of traveling through fifteen states, with only a couple of rude, crude, but harmless exceptions, no one hassled us or spoke an uncivil word. In fact, we're happy to report, "Elmerism" is very much alive in rural America. Almost daily, folks from different walks of life went out of their way to be helpful to us.

For example, one morning in western Ohio, Gina's wheel slipped off a steep pavement edge, and in turning back onto the pavement, it threw her onto the road in front of Carol. Before she could react to avoid it, Carol rode over the heap that was Gina and her bike and fell hard on the pavement also. (Gina told us later that Carol's wheel had run over her helmet. We replaced the helmet.)

Only two vehicles passed us in the space of several minutes. One car drove around us, going in our direction. Moments later, a pickup driver going the other way, stopped and offered assistance. We accepted a lift for all three of us and our bikes for a couple of miles to the town our benefactor had just left. We were able to calm down and wash up in a restaurant before getting back on the road.

We rolled into Anacortes on schedule, in great shape and ready for more. Plans are already in the dream mill for getting back on the roads of America—with a tried and tested bicycle-mobile setup next time!

—Dave DeVoe, WL7CRD  
6315 Abraham Rd  
Fairbanks, AK 99709

## HF WORLD

### *Hamming Along the Pacific Crest Bicycle Trail*

This year's bicycle tour along the Pacific Crest Bicycle Trail involved 11 cyclists (6 men and 5 women, ages 30 through 65), who met at Lake Tahoe, CA on September 7. The trip had been advertised as being along the toughest section of the Trail, and on the final day, September 15, no one doubted that description.

There were major 4-5,000-ft. elevation-gain passes to climb, including Monitor Pass, Devils Gate and Conway summits, Tioga Pass into Yosemite Park, and a major climb to Shaver Lake. The 60-year-old cyclists among us were among the best "mountain goats."

### **Ham Gear Brings in Many Contacts**

I was the only ham on the trip this year, and my hamming was almost entirely of the HF variety. I operated mostly 40 meter CW (morse code) with some 20 meter work on the side. Even though propagation conditions continue to be poor to fair because of low sunspot activity. I had more luck getting out this year than in all the previous years' tours. Experience counts.

Operating from campgrounds ranging from 6-8,000 feet elevation to deep in canyons with my trusty Wilderness Radio Sierra multiband CW transceiver (costs several hundred dollars as a kit) and a 20-30-40-meter home-made inverted V antenna fed by RG8-X coaxial cable, I had as many contacts as I wanted. The maximum antenna height ranged from 30 to 40 feet. QSOs ranged from up and down the West Coast to as far away as the East Coast. Efforts to contact Japan on 40 meters weren't successful.

### **Solar Power, Body Power**

The 12-volt battery pack for the Sierra transceiver was charged by a 10-watt solar panel during the day while riding. One interesting discovery was that when I got up during the night to operate on 40 meters, if the temperature was down in the 30s, the cold lead-acid gel cell would lack power. I learned to keep the battery pack in the sleeping bag with me...talk about cowboys sleeping next to their horse!

Three of the contacts I had were with other low-power enthusiasts. I learned that one of them was using a Sierra as well, in Lake Oswego, OR. When operating in Yosemite Valley, surrounded by stunning stone walls rising 3,000 feet or more, I was pleasantly surprised that my 2 watts still ricocheted out and landed me several California contacts.

Next year's mountainous tour, which is free (everyone is self-supported, with no support vehicle), will start at Pine Flat Reservoir not far from Fresno and will end in the mountains around Los Angeles (with a desert section). I'm always looking for hams to join the tour and provide two meter communications. If interested, contact me and I'll put you on the 1997 mailing list.

—Bil Paul KD6JUI (415-345-7021)  
337 Estrella Way  
San Mateo, CA 94403-2940.

# PUBLIC SERVICE

## Ham Radio Supports

### The Courage Classic Bicycle Tour

When two thousand bicyclists gathered in June in Loveland, Colorado to ride the three-day Courage Classic, Ham radio was there to provide the communications network. With such a large group doing a three-day mountain road ride up to Estes Park and back, the use of Ham radio for communications greatly improved the logistical efficiency of all aspects of the tour.

**Emergency Communications.** Ham radio aided in emergency communications in an effective manner. There was a ham with the State Patrol at all times and another with the hired ambulance. The hams were active in handling the four accidents during the tour which required medical assistance, the worst of which was a broken collar bone. The ham coverage was better than the State Patrol radio coverage because of the use of a portable repeater, loaned to the tour by the Colorado Repeater Association. It uses the reserved public service channel of 146.865 MHz. This portable repeater was particularly useful high in the mountains, where some of the roads run as high as 10,000 feet. At lower altitudes and on the plains, the Fort Collins repeater on 145.115 MHz proved quite effective. Notification of an accident would occur through the net control on the ham network and then be relayed to the authorities.

In addition to the four State Patrol vehicles and one ambulance, 24 hams participated for all three days of the event. Two other hams worked part time. Solid emergency communications demands a superior location for the portable repeater. So it was placed, with permission, on private property at the top of Devils Gulch road, about 7,700'. Although it took Keith Bobo, NOVNX, Tour Communications Director, four days of pre-tour scouting to find the best location, it was worth the effort.

**Coverage of Routine Traffic.** Ham radio also provided the most effective means of communicating general logistical information. This traffic consisted of coordination of sag wagons, registration information, the staging of supplies for aid stations, and keeping track of riders. The staffing of aid stations was coordinated by ham radio. Bicycle mechanic assistance was dispatched by ham radio. Or if a tired rider needed to be picked up a ham was near by.

Pre-tour planning determined that all ham network stations needed at least 15 watts to be effective in the mountain terrain. Some hams used cross-band remote base stations in their cars in conjunction with an HT so they could roam around at an aid station. Radio traffic was so heavy during the daylight hours that the repeaters were in use 75% of the time. One ham set up a small tower and beam at an aid station and was helpful when there was a repeater failure. The hams practiced net operations ahead of time to improve their operating efficiency.

Courage Classic officials used business band HTs at 460 MHz for local communications, but these were not nearly as effective as the ham network using the repeaters. When a traffic problem arose the State Patrol was called to smooth things out. They used one car and four motor cycles to stop traffic at intersections, to create one-way lanes when bicycle traffic was heavy, and to provide general assistance.

**Big Success.** As a result of everything running more smoothly because of better communications more fun was had by the Classic riders, organizers, and hams alike. Working 6-8 hour days, the 26 hams who participated received full room and board and a Classic t-shirt. The hams were also invited to participate in all of the Classic events, which included a party each night. All the riders were very appreciative of the ham radio support, with the Courage Classic being recognized as possibly the best run bicycle tour in Colorado.

—Richard Kiefer, KODK  
4700 47TH St  
Boulder CO 80301-1746

## REMINDERS

### BMHA Net....on 20

TIME: 2000 UTC and four hours later at 0000 UTC.

DATE: 1st and 3rd Sunday of each month.

FREQ: 14.253 -- plus or minus the QRM.

Look for me, NF0N, at those times, and if I'm unable to call the net please look for those who have picked up the net when I've been out of town. In particular, look for Assistant Net Controls Jim Kortge, NU8N, and John Liebenrood, K7RO. Jim covers the East, John covers the West, and I cover the middle.

—Mike Nickolaus, NF0N, BMHA Net Control  
316 E. 32nd St.  
S. Sioux City, NE 68776

### For Sale

Do you have bicycle-mobile-related radio equipment for sale? Send in a description and we'll run it. Limit of 20 words, plus your name, address, phone. For members only.

### Make Your Own "J" Antenna

As mentioned in the April '95 issue, Ken Wahrenbrock, KP6NC, has offered to provide detailed instructions for making his famous MOB Stainless "J" Antenna. This is the antenna used by over 40 members of the bicycling wing of the Downey (CA) ARC. Using this antenna on his bike, Ken can hit his base station when he's 100 miles from home--and using only 1.5 watts. These instructions require careful drilling and the ability to silver-solder steel to brass. You must specify whether you want plans for 144, 220, or 440 MHz. They're \$1 each, postpaid. Write to Ken Wahrenbrock, KP6NC, 9609 Cheddar St, Downey CA 90242. (This offer available to BMHA members only.)

### Back Issues Still Available

You may purchase any of the twenty three back issues of the BMHA NewsLetter for \$1.50 each, postpaid. For info on the contents of the various issues send a business-size SASE to: BMHA, POB 4009, Boulder CO 80306-4009, and ask for the Index of Back Issues. This service available to members only.

### Your Bicycle Flies For Free!

As a member of BMHA you get free transport of your bicycle, when you fly on Northwest Airlines. You save \$90 on a roundtrip flight. For details call Wild World of Travel, Missoula MT, 1-800-735-7109. Mention that you're a network member of Adventure Cycling.

# NEW HAMS

## Three More Members Now Have Tickets!

They hit the books, sweated, and got nervous at the exam site--just as we all did. But they passed! Since the last issue these members have become licensed hams:

Tom McManamon, KC8EPW, Cleveland, OH  
Elwynn J Miller, N1VVC, East Sandwich, MA  
Bill Sharp, KB2ZKH, Ocean City, NJ

*Non-ham BMHAers, please send in your call sign as soon as you get your FCC amateur radio license. We'd like to list you in this column. If you have time, tell us how and what you studied, what helped you to pass the test. We'll pass it on to our non-ham members who are thinking about taking the exam.*

Bill Sharp (age 71) writes:

....At long last, I passed and my call sign is KB2ZKH. Actually the long delay was not in the difficulty with the test. I used ARRL video and computer program and the studying went well. I passed the first time I took the test.

My delay was caused by a cardiac arrest, on May 23, 1995, while riding my bike. Although I had a cellular phone in my bike bag, no one knew it. A friend passing by stopped and gave me CPR and got me going enough that when the fire medics came they were able to zap me three times and get me stabilized enough to take me to the local hospital. After a hospitalization of two weeks, I went home with an implanted defibrillator/pacemaker, weak as a kitten.

After a couple weeks of walking I started back on the bike, a few blocks at a time and doing other exercises. After a year now I am riding 12 to 20 miles per day and ready for some touring.

Haven't mounted a radio on the bike yet but that is in the near future.

—Bill Sharp, KB2ZKH  
2145 West Ave  
Ocean City, NJ 08226

# NEW MEMBERS

*We're pleased to add these names to our Membership List:*

Catherine Crandall, AA7GX, 3200 W Champagne, Tucson AZ 85745  
Jeffrey L Greer, WD4ETO, 11239 Beacon Dr, Jacksonville FL 32225  
George Kilmer, 4285 Wilshire Dr, Marion IN 46952  
Robert Lee, 340 E Main St, Oak Harbor OH 43449  
Frederick G Marx, N8ZCT, 14641 N Galletin, Brook Park OH 44142  
Ann Nelson, WODKJ, 2012 W 49th Ter, Shawnee Mission KS 66205  
Jim Nybo, N7MSB, POB 1687, Helena MT 59624  
James K Owens, KE6VRT, 558 Willow Ct, Benicia CA 94510  
Hybert E Riddle, KC8DSY, 2345 Lois Dr, Grove City OH 43123  
Henry G Seyfert, WD9FYF, 210 Davidson Dr, Danville IL 61832  
Barbara J Stewart, KC8DSX,  
Scott Ryan, KC8CNO, 1456 Elmwood Av #D, Columbus OH 43212

*With traditional ham friendliness, make contact with these new members, welcome them to BMHA, and help them with any problems they might have.*

# BMHA NEWSLETTER

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*Russell Dwarshuis, KB8U Len Koppl, KD0RC*

*Mike Nickolaus, NF0N Bob Puhuj, KE8ZJ*

*Chairman and Founder: Hartley Alley, NA0A*

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We welcome articles, suggestions, letters, announcements, photos, artwork --- anything pertaining to bicycling while operating an amateur radio, or vice versa.

Submitted material will be edited for clarity and, if necessary, shortened to fit space constraints. Material should be submitted before Mar 1, June 1, Sept 1, or Dec 1 for inclusion in the ensuing issue.

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## ABOUT BMHA

### For the information of our first-time readers

Bicycle Mobile Hams of America got its start when a 'Stray' in the June '89 QST magazine asked to "get in touch with hams who operate their radios while bicycle-mobile", signed by Hartley Alley, NA0A. Twenty five hams responded, filled out questionnaires, and received a summary of the collected data.

In April of '90 we had our first BMHA Forum at the Dayton Hamvention. We played to a packed house, overflowed the room, and added 54 names to our mailing list. Our six subsequent forums have drawn increasingly larger audiences, and now BMHA is firmly established as a 'regular' at this world-renowned event.

This is the twenty-fifth issue of our quarterly newsletter, which has become the clearing house for the exchange of info and ideas for the hams who go on the air from their bicycles. Since the last issue of this newsletter we have added 12 new members. The total membership now stands at 445, with members in 43 states, and six countries. BMHA is affiliated with Adventure Cycling Association and the League of American Bicyclists.

BMHA membership puts you in touch with a friendly and helpful group of bike-riding hams. You'll make contacts through our membership directory, packet and E-mail address lists, bi-weekly net on 20 meters, annual meeting and Forum at the Dayton Hamvention and other regional meetings, and of course through the BMHA NewsLetter, which has articles on bike trips, antennas, other gear, operating tips, etc. Membership application blank on the next to last page.

# CLUBS & EVENTS

## RAGBRAI, and Then Some

The Des Moines Register's Annual Great Bicycle Ride Across Iowa (RAGBRAI) this year helped celebrate Iowa's sesquicentennial anniversary. RAGBRAI was to end in the north east part of the state, not all that far from my home in St. Paul, Minn., so I decided to ride solo to the beginning and then back home after the end—about 2 1/2 days each way.

Some of the six days of 'BRAI were fairly short—it averaged 85 miles a day. I compensated for that with a century option one day, followed the next day with 150-mile option. Most of my solo (non-'BRAI) days were century-pluses. The whole trip was 1174 miles in 11 days of pedalling, carrying all my gear. The bike and gear weighed in at 60 pounds. I think I over-packed.



*John Kaplan and his trusty recumbent at mile 1174.*

My hamming was primarily with an informal group on 'BRAI called the Mega Cycles—we had 15 members this year. We gather from across the country each year to provide radio communications for getting the 10,000 or so other bikers across the state safely. If you'd like to join the Mega Cycles, drop me a line at the address below.

### Radio Gear

I used a Yaesu FT-11R, firmly held in a home-brew sheet metal "cup". Pop-riveted and glued to the back are a wide piece of webbing to pad the metal, and velcro strips, necessary to attach to my fairing brace. The radio slips in the top and is held securely by friction, but there is an elastic loop I can slip over the HT's control knob. Oh, during the 'BRAI, I also carried an over-weight business-band HT to reach ambulances or police.

The normal 4.8v 600mAh battery works fine for me, as I discovered last year when I forgot to bring the external battery adapter. That adapter is Yaesu's dry cell case modified. A 6-foot cord lets me connect to a 6v 2.6 Ah gel cell that I drop in a pannier.

My favorite mike is the Yaesu MH-19A2B. It has an ear bud and a tiny mike with the PTT switch. I usually just drop the mike in the top of my shirt and pull it out to talk.

The antenna is a Diamond NR-770RA (I have been known to carry a dual-bander HT). I'm sure a J-pole ought to work better, but a local repeater which speaks back a-meter readings tells me that the Diamond equals the best J's I've tried. Further, J's don't seem to mount well on my recumbent. The Diamond ant is mounted to a piece of 2-1/4" x 15" x 1/8" aluminum. The bottom of the mount is insulated with a blob of coax-seal, and the transmission line is secured to the underside

by three metal clamps (to keep it off the wheel. The sheet metal extends the rack to the rear and provides the clearance I need to bungee a tent and sleeping bag to the rack.

### Camping Conditions

Having never taken any solo, overnight rides, I was quite uncertain of how to find camp sites by myself. Before the trip I pestered my friends who had made similar trips. Nothing helped. On the ride I discovered that there was no trouble at all finding sites. I still don't feel like I know what I'm doing, but everything worked quite nicely. Possibilities include: road-side parks, parks in small towns, yards of folks you happen to meet, abandoned farmsteads, yards of public maintenance buildings, ... any level piece of ground that's generally out of sight.

One town was having a local celebration, so their fairground was dotted with RVs...I tented near the restrooms with running water, and in the morning had a nice pancake breakfast cooked right there by the boy scouts for the price of a free-will donation.

Park and filling station restrooms were fine for taking sponge baths. I carried a solar shower that gives a nice bath with only an hour or so of sun. Laundry? I showered in my biking duds.

### Troubles

Believing a detour sign and a filling station attendant, I chose the 30-mile detour to go 10 miles. After struggling for an hour up a 4- mph hill, I stopped to chat with a hiker. He thought the construction couldn't be as bad as the hills coming up. In minutes I was back at the detour sign. The closed section was fine: packed dirt and firm gravel. It was much faster than that killer hill and the unpaved part was only a mile long.

The next day I came to another "Road Closed" sign. Ignoring the sign, I found pavement all the way through. The moral seems to be always hit construction zones on weekends when the crews are off and ignore the warnings.

My only mechanical trouble was a couple of flats on the last day. They were learning experiences. The first was a pinch from hitting the edge of a raised pavement slab. I learned to keep my tires well inflated, and that patches don't stick so well in the rain. My second flat was from over-stressing the too-narrow spare tube. I will now make sure that my tire and spare tube match. Oh, by that time it had stopped raining, so I patched the first tube and got home without further incident.

Another thing I learned is how to "fold" a normal clincher tire to carry as a spare. Hold the tire horizontally in front of you (on a table, the ground, or just in your hands). Push the nearest part away while pulling the farthest part towards you. Eventually the tire resembles a 3-loop figure eight. Fold the left loop over the center loop, then do the same with the right loop. Now your tire is 1/3 the diameter and easy to pack. When you unfold the tire, it has an interesting curve, but still works just fine. Since my recumbent uses 16" and 700c tires, I carried two spares. The folded 16" tire fit beautifully in the center of the folded 700c.

The 150-mile RAGBRAI option was not a piece of cake. The turnoff went west, and at that intersection was a flag blowing straight east. It looked starched! The psychological killer was that 35 miles into the ride the 150 route took us all the way back to the start of that day's ride, where we joined the day's regular route. Was it worth it? You bet. I got a free Not-Just-Another-Pretty-Place sticker from Bolan, Iowa...population 20.

—John Kaplan, WROW

1516 Mississippi River Blvd. So.

St. Paul MN 55116

# GETTING STARTED

Column conducted by Bil Paul, KD6JUI

## How to Make a Basic 2-meter Bike Antenna

This issue, I'd like to describe a simple 5/8-wavelength vertical bike antenna you can build from cheap hardware store materials (except for the coaxial cable) for a couple dollars. As my first bike antenna it worked very well. The design was modified from an ARRL book.

Cut a 57-3/4" length of white 7/8" outer diameter (5/8" inner diameter) PVC pipe. From here on in, the drawing pretty well explains things: a copper wire runs down inside the pipe from the top, exiting through a hole you've drilled. Here it connects with a smaller-gauge wire which is wound around the pipe ten times over a 3-1/4" distance, forming a loading coil. At the bottom of the coil the wire ducks into the pipe again, exiting again about a inch further down, serving to anchor this wire and preserve the coil form (this distance isn't critical). Extend the wire maybe a foot beyond the hole for now. Later you will find a place to attach it to your bike frame to form a crude ground plane — then trim it as needed — the length of this wire isn't critical.

Bring 50-ohm impedance coaxial cable into the bottom of the pipe from your HT — with 4 inches of the center conductor exposed and the braid put to one side and twisted into a slender wire. The center conductor, of course, can't touch the braid, so preserve a portion of its insulation. Run the center conductor out the hole you've drilled and attach it to the third turn of the coil. Bring the braid-wire out the hole at the bottom of the coil and attach it to the copper wire there. Trim all excess wire or braid and solder all connections.

Using two hose clamps, connect the antenna to your rear rack. If you have a VHF SWR meter you may wish to adjust the length of the long upper wire for minimum SWR (standing wave ratio). On the other end of the coax, attach a BNC connector — I like to use the right-angle variety.

If you build this antenna please write and let me know how it works for you. Its advantages: low cost, not ugly, strong, no one will steal it! Disadvantage: can't tip bike upside down to take tires off, etc.

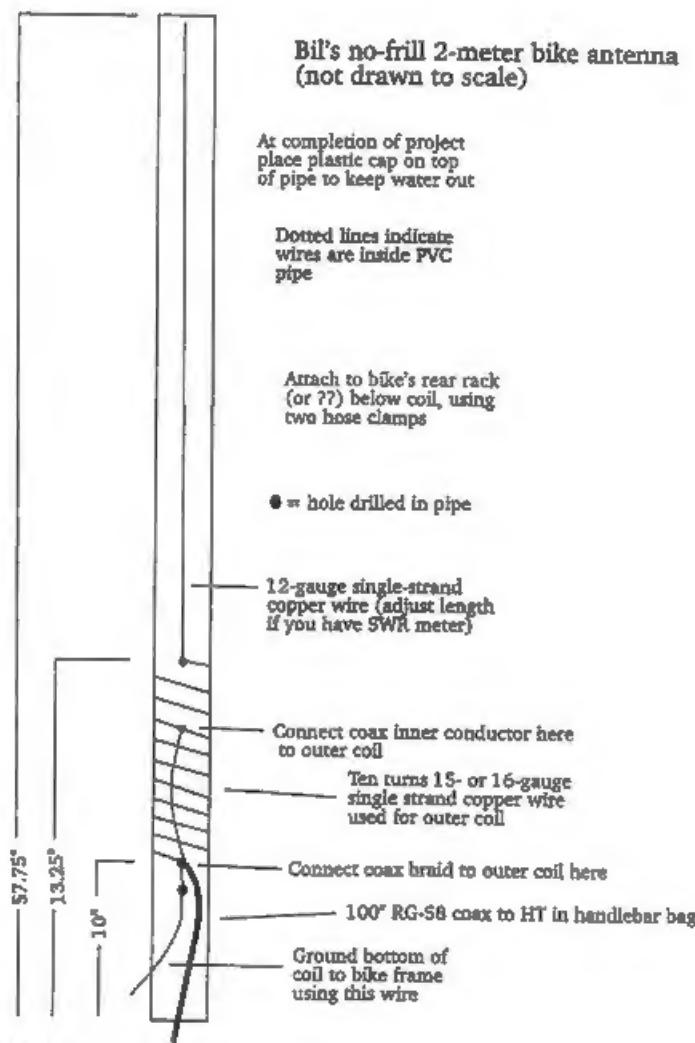
I'm currently testing a commercial Lakeview 3/4 wavelength 2-meter antenna on my bike. (Write for a catalog: Lakeview, 3620 Whitehall Rd., Anderson, SC 29624.) It has the advantage of having a quick release, which means I can also use the same antenna on my van.

Until next time,

—Bil Paul KD6JUI

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San Mateo CA 94403-2940



## Membership Application

MemAPP13.wps 6/17/06 1pc /newmem /pec /E-mail /newHAM /NONham /news /Q's /tree /web /env  
**BICYCLE MOBILE HAMS OF AMERICA**  
Box 4009, Boulder, CO 80306-4009

date \_\_\_\_\_

Individual \$10 \_\_\_\_\_ new member? \_\_\_\_\_ renewal? \_\_\_\_\_

Family \$15 \_\_\_\_\_ Foreign \$15 \_\_\_\_\_ Donation \$ \_\_\_\_\_

(limit: two persons)  
Make check payable to BMHA, in US dollars or international money order.

Name \_\_\_\_\_ Call \_\_\_\_\_

Address \_\_\_\_\_ License Class \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Age \_\_\_\_\_ Most miles bicycled in one day \_\_\_\_\_

## BMHA's Official Logo

The next time you need to order new QSL cards, don't forget to include the BMHA logo in your design. Here's the official logo, as designed by Russ Dwarshuis, KB8U.

BICYCLE MOBILE



Bicycle Mobile Hams of America  
PO Box 4009  
Boulder, CO 80306-4009

*Address Correction Requested*

## First Class Mail

## COMMENTS

....That was an excellent job of editing my ramblings *[about last issue's "Dave Does the Double Cross"]*. I now call my trip "Michigan Supercross" instead of "Michigan Doublecross". I had tee shirts made with the new name on the front and my itinerary on the back. In addition to the names of the towns, I have my call and "BMHA/ARRL". One cyclist didn't know what BMHA stood for, but he does now!

My other activities in the past year include accompanying the *AXA World Ride '95* for 26 miles into Pittsburgh, and providing communications in the wheelchair division of the Pittsburgh Marathon this spring. Next year's wheelchair race should go better for me because I plan to have a headset with boom mic and PTT switch. I got the speakerphone cord tangled once and had a difficult time catching up with the wheelchairs after I stopped to free it.

---Dave Porterfield, N3VHJ, Zelienople, PA

....I rode the Oklahoma Freewheel last month. There were a few hams on the ride, they saw my call on the bike rear rack and introduced themselves. However, none had their HTs on the bike (that I met). I used a half-wave antenna for a few days, but as we went Northwest I was unable to hit repeaters. So I did not carry it for the last three days or so. It would have been fun to operate simplex with others on the ride. It was a good ride—lots of (ugh) hills!

---Jim Gillespie, KK5OK, Houston TX

....The first day bicycle-mobile I was able to help a stranded motorist by obtaining a phone patch and placing a phone call.

---Bill Larson, KG0XW, Colorado Springs CO

....Hello, Hartley....Nice article on your ride from Colo. to Mass. Here's my new address. I'm in the country more now and plan to bike and ham radio much more. ....I'd like to know if KC7DAT *[Marcie Stillwell]* made the Seattle-to-Portland ride & if she took her 2-meter rig. I did that a couple of years ago & found 2-meters a little awkward in such a large group, where I had to be ready to duck & dodge.

---Monte Midkiff, N7TAU, Lopez WA

....While riding from Seattle to Portland I was able to contact a ham friend in Portland whom I previously had only contacted via packet. When I arrived in Portland, I was also able to finally meet her in person. I use an ear-mic while riding and have a J-pole antenna made of twin lead, by "Shoe String Antennas", attached to a bicycle flag. I'd like to hear more about battery and antenna setups.

---Marcie M Stilwell, KC7DAT, Poulsbo WA

....I'd like to thank you for the article on how to build a 2-meter antenna out of a rim. (*See the October '95 issue.*) I built it (and made a few modifications: a 75-Ohm impedance match section of coax and a tuning stub) and have found it to be a fantastic performer with a SWR of about 1.1 to 1 at 146.520 MHz. It has proven to be quite as conversation piece!

---Scott Ryan, KC8CNO, Columbus OH